



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,272	04/02/2004	Deuk-hwan Chang	46327	9855
1609	7590	08/10/2006	EXAMINER	
ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			KOHNER, MATTHEW J	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/816,272	CHANG, DEUK-HWAN	
	Examiner	Art Unit	
	Matthew J. Kohner	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-25 is/are rejected.
- 7) ☒ Claim(s) 13 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/2/04;6/29/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

Examiner could not locate the Korean Office Action listed in the IDS of June 29, 2005.

Therefore, it has been lined through on the IDS and not considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 10-12, 14, 16, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,078,380 to Kitazawa (*hereinafter* “Kitazawa”).

In regard to claims 1 and 14, Kitazawa discloses a paper feeding apparatus of a printing machine, comprising:

- a paper feeding tray (87) for stacking a plurality of printing papers therein;
- a pick-up unit (201) having a pick-up roller (89) which rotates at an upper part of the paper feeding tray to pick up the printing paper;
- a knock-up plate (85) moving up and down in the paper feeding tray to contact the printing paper of the paper feeding tray with the pick-up roller to lift the printing paper;
- a separation member (93) for separating the printing paper picked up by the pick-up roller sheet by sheet;

- a sensor (301) for detecting a distance between the printing paper and the pick-up roller;
- and
- a lifting device (see Fig. 6) for lifting the knock-up plate by a signal of the sensor to maintain a constant contacting status of the printing paper and the pick-up roller.

In regard to claim 3 and 16, see Fig. 3.

In regard to Claims 10, 11, 23 and 24, see col. 7, lines 39-43.

In regard to Claim 12 and 25, see Fig. 6, see also col. 7, lines 44-63.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitazawa in view of US Patent No. 6,648,322 to Park (*hereinafter* "Park").

Kitazawa discloses a pick-up roller (89) but does not specifically disclose a gear train. However, Park discloses a gear train. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a gear train, as taught by Park, because gearing would allow the power for rotating the pick roller to be transmitted to the pick roller from a drive source.

Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitazawa in view of US Patent No. 5,954,327 to Lin et al. (*hereinafter* "Lin").

Kitazawa discloses a pressure plate (87) but does not specifically disclose a spring to urge the pressure plate down. However, Lin discloses such a spring (161). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a spring attached to the bottom of the pressure plate, as taught by Lin, because it would ensure the pressure plate was urged against the force driving the plate upward.

Claims 5-9, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over United Kingdom Patent No. 2,230,000 A to Rawson (*hereinafter* "Rawson") in view of Kitazawa.

In regard to claims 5 and 18, Rawson discloses a paper feeding apparatus of a printing machine, comprising:

- a paper feeding tray (1) for stacking a plurality of printing papers therein;
- a pick-up unit (see Fig 1) having a pick-up roller (4) which rotates at an upper part of the paper feeding tray to pick up the printing paper; and
- a separation member (6/7) for separating the printing paper picked up by the pick-up roller sheet by sheet wherein the separation member has an arrangement part (6) and a separation part (7; see also page 2, lines 34 – page 3, line 5).

Rawson does not disclose:

- a knock-up plate moving up and down in the paper feeding tray to contact the printing paper of the paper feeding tray with the pick-up roller to lift the printing paper;

- a sensor for detecting a distance between the printing paper and the pick-up roller; or
- a lifting device for lifting the knock-up plate by a signal of the sensor to maintain a constant contacting status of the printing paper and the pick-up roller.

However, Kitazawa discloses

- a knock-up plate (85) moving up and down in the paper feeding tray to contact the printing paper of the paper feeding tray with the pick-up roller to lift the printing paper;
- a sensor (301) for detecting a distance between the printing paper and the pick-up roller;

and

- a lifting device (see Fig. 6) for lifting the knock-up plate by a signal of the sensor to maintain a constant contacting status of the printing paper and the pick-up roller.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rawson to include a knock up plate, a sensor and a lifting device, as taught by Kitazawa, because the as Kitazawa discloses the structure provides the advantage of simplifying the device by removing a spring (col. 10, lines 3-5).

In regard to claims 6 and 19, see the top of weir plate (6) in Fig. 1.

In regard to claims 7, 8, 20 and 21, see Fig. 1.

In regard to claims 9 and 22, Rawson does not discloses the separation member is integrally formed with the tray, however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rawson to make the separation member integral since it has been held that forming in one piece an article that has formerly been formed in multiple pieces and put together involves only routing skill in the art. *Howard v. Detroit Stove Works*, 150 US 164 (1893).

Allowable Subject Matter

Claims 13 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kohner whose telephone number is 571-272-6939. The examiner can normally be reached on Mon-Fri 9-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew J. Kohner
Examiner
Art Unit 3653

mjk



**PATRICK MACKEY
PRIMARY EXAMINER**